



GHS SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **CHEMLOK 200K**
Product Use/Class: **PRIMER**

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EFFECTIVE DATE: 07/13/2014

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 2
Acute toxicity Oral Category 5
Acute toxicity Inhalation - Dust and Mist Category 2 - 19.3% of the mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity Inhalation - Vapours Category 4 - 19.3% of the mixture consists of ingredient(s) of unknown toxicity.
Acute toxicity Inhalation - Gas Category 1 - 98.3% of the mixture consists of ingredient(s) of unknown toxicity.
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Germ cell mutagenicity Category 2
Carcinogenicity Category 2
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system, Cardio-vascular system, Respiratory system, Kidney, Nervous system, Blood, Liver
Specific target organ systemic toxicity (repeated exposure) Category 2 Blood, Nervous system
Specific target organ systemic toxicity (repeated exposure) Category 1 Central nervous system, Kidney, Hematopoietic System, Cardio-vascular system, Digestive organs, Liver, spleen, thymus, Lungs, Peripheral nervous system
Aspiration hazard Category 2
Hazardous to the aquatic environment - acute hazard Category 1
Hazardous to the aquatic environment - chronic hazard Category 1

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Highly flammable liquid and vapor.
May be harmful if swallowed.
Fatal if inhaled.
Harmful if inhaled.
Fatal if inhaled.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing genetic defects.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause harm to breast-fed children.
May cause drowsiness or dizziness.
May cause respiratory irritation.
Causes damage to organs.(Central nervous system, Cardio-vascular system, Respiratory system, Kidney, Nervous system, Blood, Liver)
May cause damage to organs through prolonged or repeated exposure.(Blood, Nervous system)
Causes damage to organs through prolonged or repeated exposure.(Central nervous system, Kidney, Hematopoietic System, Cardio-vascular system, Digestive organs, Liver, spleen, thymus, Lungs, Peripheral nervous system)
May be harmful if swallowed and enters airways.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Wear respiratory protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

Response

In case of fire: refer to section 5 of SDS for extinguishing media.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Do NOT induce vomiting.
Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: This product contains a residual amount of a chemical substance that may cause an allergic skin and/or respiratory reaction. Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material. Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Harmful if inhaled or absorbed through skin. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. Repeated or prolonged solvent overexposure may result in permanent central nervous system damage. IARC has designated titanium dioxide (TiO₂) as Group 2B – possibly carcinogenic to humans in dust form. However, a number of long term animal studies and human epidemiology studies evaluating TiO₂ and workplace exposure show insufficient evidence for carcinogenic affects. EPA, NTP and OSHA do not designate TiO₂ as a carcinogen and ACGIH designates TiO₂ as A4 - not classifiable as a human carcinogen. TiO₂ is not present in this product as a dust and no airborne exposure is expected during application. IARC has designated carbon black as Group 2B - inadequate evidence for carcinogenicity in humans, but sufficient evidence in experimental animals. ACGIH considers Ethyl alcohol to be an A3 carcinogen (confirmed animal carcinogen with unknown relevance in humans). May cause liver or kidney damage. May affect the gastrointestinal system. May affect the blood and blood-forming organs. May cause long-term lung damage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight % Less Than
Methyl ethyl ketone	78-93-3	55.0 %
Toluene	108-88-3	20.0 %
Titanium dioxide	13463-67-7	10.0 %
Carbon black	1333-86-4	5.0 %
Epoxy resin	PROPRIETARY	5.0 %

Ethyl alcohol	64-17-5	5.0 %
Acetone	67-64-1	5.0 %
2-Butoxyethanol	111-76-2	5.0 %
Phenol	108-95-2	5.0 %
Glycol ether	112-34-5	5.0 %

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNSUITABLE EXTINGUISHING MEDIA: High volume water jet

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the MSDS form. Contain and remove with inert absorbent material.

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored.

STORAGE: Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Methyl ethyl ketone	200 ppm	300 ppm	590 mg/m3 200 ppm	N.E.	N.A.
Toluene	20 ppm	N.E.	200 ppm	300 ppm	N.A.
Titanium dioxide	10 mg/m3	N.E.	15 mg/m3	N.E.	N.A.
Carbon black	3 mg/m3	N.E.	3.5 mg/m3	N.E.	N.A.
Epoxy resin	N.E.	N.E.	N.E.	N.E.	N.A.
Ethyl alcohol	N.E.	1,000 ppm	1,900 mg/m3 1,000 ppm	N.E.	N.A.
Acetone	500 ppm	750 ppm	2,400 mg/m3 1,000 ppm	N.E.	N.A.
2-Butoxyethanol	20 ppm	N.E.	240 mg/m3 50 ppm	N.E.	S
Phenol	5 ppm	N.E.	19 mg/m3 5 ppm	N.E.	S
Glycol ether	N.E.	N.E.	N.E.	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Solvent	VAPOR PRESSURE:	N.D.
APPEARANCE:	Gray	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	1.1 %(V)
FLASH POINT:	30 °F, -1 °C	UPPER EXPLOSIVE LIMIT:	19 %(V)
BOILING RANGE:	56 - 230 °C	EVAPORATION RATE:	Slower than n-butyl-acetate
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	0.96 g/cm3
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	≥5 mPa.s @ 25 °C
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	≥5 mm2/s @ 25 °C
SOLUBILITY IN H2O:	Insoluble	VOLATILE BY WEIGHT:	73.76 %
pH:	N.A.	VOLATILE BY VOLUME:	85.36 %
FREEZE POINT:	N.D.	VOC CALCULATED:	5.81 lb/gal, 696 g/l
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.		

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization may occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Methyl ethyl ketone	Oral LD50: Rat 2,737 mg/kg

	Dermal LD50: Rabbit 6,480 mg/kg Inhalation LC50: Rat 23,500 mg/m ³ /8 h
Toluene	Oral LD50: Rat 636 mg/kg Dermal LD50: Rabbit 8,390 mg/kg Inhalation LC50: Rat 12.5 mg/l /4 h
Titanium dioxide	Oral LD50: Rat > 10,000 mg/kg GHS LC50 (vapour): rat 55 mg/l /
Carbon black	Oral LD50: Rat > 15,400 mg/kg Dermal LD50: Rabbit > 3 g/kg GHS LC50 (vapour): rat 55 mg/l /
Epoxy resin	N.D.
Ethyl alcohol	Oral LD50: Rat 7,060 mg/kg Inhalation LC50: Rat 124.7 mg/l /4 h
Acetone	Oral LD50: Rat 5,800 mg/kg Inhalation LC50: Rat 50,100 mg/m ³ /8 h
2-Butoxyethanol	Oral LD50: Rat 470 mg/kg Dermal LD50: Rabbit 220 mg/kg Inhalation LC50: Rat 450 ppm/4 h
Phenol	Oral LD50: Rat 317 mg/kg Dermal LD50: Rabbit 630 mg/kg Inhalation LC50: Rat 316 mg/m ³ /4 h
Glycol ether	Oral LD50: Rat 3,384 mg/kg Dermal LD50: Rabbit 2,700 mg/kg

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Methyl ethyl ketone	<u>Fish</u> : Pimephales promelas 3,130 - 3,320 mg/196 h flow-through <u>Invertebrates</u> : Daphnia magna > 520 mg/148 h Daphnia magna 5,091 mg/148 h Daphnia magna 4,025 - 6,440 mg/148 h Static
Toluene	<u>Fish</u> : Pimephales promelas 15.22 - 19.05 mg/196 h flow-through Pimephales promelas 12.6 mg/196 h Static Oncorhynchus mykiss 5.89 - 7.81 mg/196 h flow-through Oncorhynchus mykiss 14.1 - 17.16 mg/196 h Static Oncorhynchus mykiss 5.8 mg/196 h semi-static Lepomis macrochirus 11.0 - 15.0 mg/196 h Static Oryzias latipes 54 mg/196 h Static Poecilia reticulata 28.2 mg/196 h semi-static Poecilia reticulata 50.87 - 70.34 mg/196 h Static <u>Invertebrates</u> : Daphnia magna 5.46 - 9.83 mg/148 h Static Daphnia magna 11.5 mg/148 h <u>Plants</u> : Pseudokirchneriella subcapitata > 433 mg/196 h

	Pseudokirchneriella subcapitata 12.5 mg/172 h Static
Titanium dioxide	N.D.
Carbon black	N.D.
Epoxy resin	N.D.
Ethyl alcohol	<u>Fish:</u> Pimephales promelas > 100 mg/196 h Static Pimephales promelas 13,400 - 15,100 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 9,268 - 14,221 mg/148 h Daphnia magna 2 mg/148 h Static
Acetone	<u>Fish:</u> Pimephales promelas 6,210 - 8,120 mg/196 h Static Lepomis macrochirus 8,300 mg/196 h <u>Invertebrates:</u> Daphnia magna 10,294 - 17,704 mg/148 h Static Daphnia magna 12,600 - 12,700 mg/148 h
2-Butoxyethanol	<u>Fish:</u> Lepomis macrochirus 1,490 mg/196 h Static Lepomis macrochirus 2,950 mg/196 h <u>Invertebrates:</u> Daphnia magna > 1,000 mg/148 h
Phenol	<u>Fish:</u> Pimephales promelas 11.9 - 50.5 mg/196 h flow-through Pimephales promelas 20.5 - 25.6 mg/196 h Static Pimephales promelas 32 mg/196 h Oncorhynchus mykiss 5.449 - 6.789 mg/196 h flow-through Oncorhynchus mykiss 7.5 - 14 mg/196 h Static Oncorhynchus mykiss 4.23 - 7.49 mg/196 h semi-static Oncorhynchus mykiss 5.0 - 12.0 mg/196 h Lepomis macrochirus 13.5 mg/196 h Static Lepomis macrochirus 11.9 - 25.3 mg/196 h flow-through Lepomis macrochirus 11.5 mg/196 h semi-static Poecilia reticulata 34.09 - 47.64 mg/196 h Static Poecilia reticulata 31 mg/196 h semi-static Brachydanio rerio 27.8 mg/196 h Cyprinus carpio 0.00175 mg/196 h semi-static Oryzias latipes 33.9 - 43.3 mg/196 h flow-through Oryzias latipes 23.4 - 36.6 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 4.24 - 10.7 mg/148 h Static Daphnia magna 10.2 - 15.5 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 46.42 mg/196 h Pseudokirchneriella subcapitata 0.0188 - 0.1044 mg/196 h Static Desmodesmus subspicatus 187 - 279 mg/172 h Static
Glycol ether	<u>Fish:</u> Lepomis macrochirus 1,300 mg/196 h Static <u>Invertebrates:</u> Daphnia magna > 100 mg/148 h <u>Plants:</u> Desmodesmus subspicatus > 100 mg/196 h

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

14. TRANSPORT INFORMATION

IATA Cargo

PROPER SHIPPING NAME: Adhesives
DOT HAZARD CLASS: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
DOT HAZARD CLASS: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: F-E

The listed transportation classification applies to IATA Cargo and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors for your country or particular locality. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

INVENTORIES

Australia Inventory of Existing Chemical Substances (AICS)	YES
Chinese Inventory of Existing Chemical Substances (IECSC)	YES
Japan Existing and New Chemical Substances (ENCS)	YES
Korean Inventory of Existing and Evaluated Chemical Substances (KECI)	YES
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	YES
US Toxic Substances Control Act (TSCA)	YES

16. OTHER INFORMATION

HMIS RATINGS - HEALTH: 2* FLAMMABILITY: 3 PHYSICAL HAZARD: 0

* - Indicates a chronic hazard; see Section 3

Revision: Section 1, Section 15

Effective Date: 07/13/2014

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.